## SEQUENCE LISTING

```
<110> Castle, Linda A.
      Siehl, Dan
      Giver, Lorraine
      Minshull, Jeremy
      Ivy, Christina
      Chen, Yong Hong
      Duck, Nicholas B.
<120> NOVEL GLYPHOSATE N-ACETYLTRANSFERASE
      (GAT) GENES
<130> 02-107010US
<140> US 10/004,357
<141> 2001-10-29
<150> US 60/244,385
<151> 2000-10-30
<160> 515
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 441
<212> DNA
<213> Bacillus licheniformis
<400> 1
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagage ttgaaggega agaacagtat cagetgagag ggatggegae gettgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 2
<211> 441
<212> DNA
<213> Unknown
<220>
<223> Unidentified microorgansim derived from soil sample
<400> 2
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattateg ggacaggetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a
                                                                   441
<210> 3
<211> 441
```

```
<212> DNA
<213> Unknown
<223> Unidentified microorgansim derived from soil sample
<400> 3
atgattgaag tcaaaccaat aaacgeggaa gatacgtatg agatcaggea cegeattete 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 4
<211> 441
<212> DNA
<213> Unknown
<223> Unidentified microorgansim derived from soil sample
<400> 4
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg tgagcggcta ctatgaaaag 360
ctcggcctca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 5
<211> 441
<212> DNA
<213> Unknown
<223> Unidentified microorgansim derived from soil sample
<400> 5
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgagggcga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 6
<211> 146
<212> PRT
<213> Bacillus licheniformis
<400> 6
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
```

```
25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 7
<211> 146
<212> PRT
<213> Unknown
<220>
<223> Unidentified microorgansim derived from soil sample
<400> 7
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Asp
                            40
                                                45
Arg Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 8
<211> 146
<212> PRT
<213> Unknown
<223> Unidentified microorgansim derived from soil sample
<400> 8
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
           100
                                105
                                                    110
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
       115
                                                125
Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Ala
145
<210> 9
<211> 146
<212> PRT
<213> Unknown
<223> Unidentified microorgansim derived from soil sample
<400> 9
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Cly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
           100
                                105
                                                    110
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Leu Ser Glu Gln Gly Gly
                            120
                                                125
Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Ala
145
<210> 10
<211> 146
<212> PRT
<213> Unknown
<220>
<223> Unidentified microorgansim derived from soil sample
<400> 10
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
                                                     110
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
        115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
    130
                        135
Leu Thr
145
<210> 11
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 11
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 12
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 12
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aagacagtat cagetgagag ggatggegae aettgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacata a
<210> 13
<211> 441
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Synthetic DNA Sequence
<400> 13
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaaggg 240
taccgtgagc aaaaagcggg aagcacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
cteggettea gegaacaggg egaagtetae gacacacege eggteggace teatattttg 420
atgtataaga aattgacgta a
<210> 14
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 14
atgattgaag tcaaaccaat aaacgeggaa gataegtatg agateaggea eegeattete 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 15
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 15
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccttggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aagggggcag acctettatg gtgcaacgce aggacatetg egagegggta etataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 16
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 16
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gggtgcgttt 120
```

```
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 17
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<221> misc feature
<222> 54
<223> n = A,T,C or G
<400> 17
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgnattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
caccteggtg gatattaceg gggcaagetg atcageateg etteetttea teaageegaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctettatg gtgcaacgce aggacatetg egagegggta etataaaaag 360
ctcggcttca gcgaacaagg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 18
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 18
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gggtacgttt 120
cacctcggtg ggtattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 19
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 19
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
```

```
aagggcgcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 20
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 20
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggcgcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 21
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 21
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg tggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 22
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 22
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattatcg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggccg aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacata a
<210> 23
<211> 441
```

<212> DNA

```
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 23
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgctt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 24
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 24
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
cacccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aetegaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 25
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 25
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 26
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 26
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
```

```
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccteggeg gatattaceg gggcaagetg atcageateg ceteetttea teaageegaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac actegaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 27
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 27
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 28
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 28
atgattgaag tcaaaccgat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 29
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 29
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
```

```
<210> 30
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 30
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggcca aaaacagtat cagetgagag ggatggegac aetegaagga 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 31
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 31
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a
                                                                   441
<210> 32
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 32
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcgtgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattacca gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
                                                                   441
<210> 33
<211> 441
<212> DNA
<213> Artificial Sequence
```

<220>

```
<223> Synthetic DNA Sequence
<400> 33
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cacccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac aettgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc caactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 34
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 34
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtccac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 35
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 35
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 36
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 36
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgcttgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
```

catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240

```
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 37
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 37
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattateg gggcaagetg ateageateg etteetttea teaageegaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacgcaccgc cgaccggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 38
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 38
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 39
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 39
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg ateageateg etteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a
```

<210> 40 <211> 441

```
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 40
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 41
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 41
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca ccaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacata a
<210> 42
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 42
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcageateg etteetttea teaageegaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 43
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 43
```

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcageateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 44
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 44
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgagggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 45
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 45
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacactc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 46
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 46
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggtgcgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cgatcggacc tcatattttg 420
```

<213> Artificial Sequence

```
<210> 47
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 47
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgcataaga aattgacgta a
<210> 48
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 48
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg attcgctcgg aggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttaa teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 49
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 49
atgatcgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gagtgcgttt 120
caccteggeg gatattaceg gggcaagetg atcagcateg ceteetttea ceaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgaggg ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 50
<211> 441
<212> DNA
```

```
<220>
<223> Synthetic DNA Sequence
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae actegaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga agttgacgta a
                                                                   441
<210> 51
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 51
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagaac ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagagggta ctataaaaag 360
ctcggcttca gcgaacaagg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 52
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 52
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg attcgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggtca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 53
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 53
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atctgcttgg gggcacgttt 120
cacctaggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
```

```
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 54
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 54
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctaga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaagetgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaagag 240
taccgcgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a
                                                                   441
<210> 55
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 55
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a
<210> 56
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 56
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacata a
```

```
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 57
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
caccteggeg gatattaceg gggcaagetg gtcagcateg etteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 58
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 58
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagctgg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcggcta ctataaaaaag 360
ctcggcttca gggaacaagg cggggtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 59
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 59
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 60
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
```

```
<400> 60
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 61
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 61
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagtgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 62
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 62
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
aggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaggccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagcacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggccggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 63
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 63
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacgtctg cgagcggcta ctataaaaag 360
```

```
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 64
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 64
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagcta gtcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatgttttg 420
atgtataaga aattgacgta a
<210> 65
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 65
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
caccttggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacatgccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga agttgacgta a
<210> 66
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 66
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cgaccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg aggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcageateg etteetttaa teaageegaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 67
<211> 441
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Synthetic DNA Sequence
<400> 67
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeet aaaacagtat cagetgagag ggatggegae actegaaggg 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgaccggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 68
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 68
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccteggtg gatattaceg gggcaagetg gteageateg ceteetttea teaageegaa 180
catccagage ttgaaggeet aaaacagtat cagetgagag ggatggegae aetegaaggg 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctettatg gtgcaacgce aggacgtetg egagegggta etataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cgaccggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 69
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 69
atgattgaag tcaaaccaat aaacgeggag gataegtatg agateaggea eegeattete 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagttg gtcagcatcg cctcctttca tcaagccaaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aetegaaggg 240
taccgtgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 70
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 70
atgattgaag tcaaaccaat aaacgcagaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
```

```
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagttgagag ggatggcgac acttgaagag 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 71
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 71
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 72
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 72
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
caccteggeg gatattaceg gggcaagetg gtcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ctgaagcgct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg caagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 73
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 73
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacaactg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg tgaagtcttc gacataccgc cgaccggacc ccatattttg 420
                                                                   441
atgtataaga aattgacgta a
```

```
<210> 74
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 74
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctaggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 75
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 75
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccttggtg gatattaccg gggcaagctg gtcagcatcg cctcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaga 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 76
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 76
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cacccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac aettgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc caactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 77
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
```

```
<400> 77
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 78
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 78
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a
<210> 79
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 79
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
caccteggeg gatattaceg gggcaagetg gtcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat caactgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg caaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 80
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 80
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
```

```
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a
<210> 81
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 81
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccttggtg gatattaccg gggcaagctg atcagcatcg tttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagcacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggccggacc tcatattttg 420
atgtatacga aattgacgta a
<210> 82
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 82
atgattgaag ttaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 83
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 83
atgattgaag tcaaaccaat aaacgcggaa gatacgtata agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaag 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 84
<211> 441
```

<212> DNA

```
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 84
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 85
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 85
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cacccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac aettgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 86
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 86
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg caaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga agttgacgta a
<210> 87
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 87
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
```

```
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaga 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 88
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 88
atgatcgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg ggtactaccg gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgagggcga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgctatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 89
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 89
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgctt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagggc ttgagggcga agaacagtat cagctgagag ggatggcgac gctcgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaatgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 90
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 90
atgattgacg tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattacca gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
```

```
<210> 91
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 91
atgattgaag tcaaaccaat aagcgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggtgcgttt 120
caccteggtg gatattacca gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg tgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 92
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 92
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcaac gcttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 93
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 93
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattaccg gggcaagetg atetgcateg ceteetttca teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagaggcta ctatgaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcgta a
                                                                   441
<210> 94
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
```

```
<223> Synthetic DNA Sequence
<400> 94
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ctgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattacca gggcaagetg atcagcateg etteetttea taaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcggcta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 95
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 95
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggtag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cgggatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 96
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 96
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagage ttgaaggeca aaaacagtat cagetgagag ggatggegac aettgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 97
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtq gatattacca gggcaagctq atcagcatcg cttcctttca tcaagccgaa 180
```

cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240

```
taccqtqaqc aaaaaqcqqq aagcacqctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 98
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 98
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga ggcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattacca gggcaagetg atcagcateg etteetttea taaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tctccgaaaa 300
aaaggcgcgg accttttatg gtgcaatgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccac cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 99
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 99
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattateg ggacaggetg atcagcateg etteetttea teaageegaa 180
cattcagage ttgaaggeca aaaacagtat cagetgagag ggatggegae gettgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aactgacgta a
<210> 100
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 100
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg tgagcggcta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
                                                                   441
<210> 101
```

<211> 441

```
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 101
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga ggcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
catctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 102
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 102
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattatcg ggacaggctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcqqcttca qcqaacaqqq cqaaqtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 103
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 103
atgattgaag tcaaaccgat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattacca gggcaagetg atcagcaccg etteetttea teaageegga 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc gaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 104
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 104
```

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tttgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtg gatattacca gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 105
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 105
atgattgaag tcagaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagcctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 106
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 106
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cgatcggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 107
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 107
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
```

```
441
atgtataaga aattgacgta a
<210> 108
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 108
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgctgga agcatgtatg tacgaaaccg atttgctcgg gggtgcgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea tecageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg cgagcgggta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 109
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 109
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcaaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 110
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 110
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggatatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 111
<211> 441
<212> DNA
```

<213> Artificial Sequence

```
<220>
<223> Synthetic DNA Sequence
<400> 111
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgggc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 112
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 112
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattatca ggacaggctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgctatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 113
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 113
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae gettgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 114
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 114
atgattgaag tcaaaccaat aaacgeggaa gatacgtatg agatcaggca cegeattete 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
```

caccteggeg gatattateg gggcaagetg ateageateg ceteetttea teaageegaa 180

```
cattcaqaqc ttqaaqqcca aaaacagtat cagctgagag ggatggcgac gcttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 115
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 115
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggatatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 116
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 116
ttacgtcaat ttcttataca tcaaaatatg aggtccgatc ggcggtatgt cgtagacttc 60
gccctgttcg ctgaagccga gctttttata gtacccgctc gcagatgtcc tggcgttgca 120
ccataaaagg tccgcgcctt ttttccgaag aagctcttcg gcatggcgga tgagcgtgct 180
tecegetttt tgetegeggt accetteaag egtegeeate eeteteaget gataetgttt 240
ttggccttca agctctgaat gttcggcttg atgaaaggag gcgatgctga tcagcttgcc 300
ccggtaatat ccaccgaggt gaaacgtgcc cccgagcaaa tcagtttcat acttgcatgc 360
ttccagcggc tgattcggcc ggagaatgcg gtgcctgatc tcatacgtat cttccgcgtt 420
tattggtttg gcttcaatca t
<210> 117
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 117
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
```

```
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 118
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattaceg gggcaagetg atcagcateg etteetttea teaageegag 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a
<210> 119
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 119
atgattgaag tcaatccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgtct 120
caccteggeg gatattaceg gggcaagetg atcageateg etteetttea taatgeegaa 180
cattcagagc ttgatggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatatttcg 420
atgtataaga aattgacgta a
<210> 120
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 120
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 121
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
```

```
<400> 121
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaatccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac gettgaaggg 240
taccgcgagc taaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 122
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 122
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggatatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 123
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 123
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtac cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac ggcataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a
<210> 124
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 124
atgattgaag ccaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
```

```
ctcqqcttca qcqaacaqqq cqaaqtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 125
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 125
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacatgg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 126
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 126
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 127
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 127
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattaacata a
<210> 128
<211> 441
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Synthetic DNA Sequence
<400> 128
atgattgagg tgaaaccgat taacgcagag gagacctatg aactaaggca taggatactc 60
agaccacacc agccgataga ggtttgtatg tatgaaaccg atttacttcg tggtgcgttt 120
cacttaggcg gcttttacag gggcaagctg atttccatag cttcattcca ccaggccgag 180
catccagaac tccagggcca gaaacaatac caactccgag gtatggctac cttggaaggt 240
tatcgtgacc agaaagcggg atcgagccta attaaacacg ctgaacagat ccttcggaag 300
cggggggcgg acatgctatg gtgcaatgcg cggacatccg ccgctggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcgta 420
atgtataaac gcctcacata a
<210> 129
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 129
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg aggcaagctg atcagcatcg cctccttcca tcaagccgaa 180
cattcagagc ttgaaggcca taaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 130
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 130
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattaceg gggcaagetg atcagcateg etteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 131
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 131
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
```

```
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea ecaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 132
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 132
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaageegta 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 133
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 133
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgcaag tatgaagccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgag 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
aaccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacgtaccgc cgatcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 134
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 134
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcagg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattatcg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae gettgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtttac gacataccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
```

```
<210> 135
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 135
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggcm ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 136
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 136
atgattgaag ccaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 137
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 137
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gggtgcgttt 120
caccteggtg gatattateg gggcaagetg atcagcateg etteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggcgcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 138
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
```

```
<400> 138
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 139
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 139
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgtta 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccaag ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataagg aattgacgta a
<210> 140
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 140
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagatc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 141
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 141
atgattgaag tcaaaccaat aaacgcggga gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tctacggaaa 300
```

```
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 142
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 142
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 143
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 143
atgattgaag tcaaaccaat aaacgeggaa gatacgtatg agatcaggca cegegttete 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacgtaccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 144
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 144
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc ggccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
catccagggc ttgaaggcaa aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacttccg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg aggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 145
<211> 441
```

<212> DNA

```
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 145
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgtattctc 60
cggccgaatc agccgctgga agcatgcatg tatgaaaccg atttgctcga gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgag 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 146
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 146
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgatgag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 147
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 147
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatggaactg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgag 180
caaccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgagcaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 148
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 148
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
```

```
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaccg gggcaagetg atcagcateg etteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg cagaagagat tcttcggaaa 300
aaaggcgcgg acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 149
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 149
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcgttctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaaccgtat cagetgagag ggatggegae aettgaagga 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaaatctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 150
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 150
atgattgaaa tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattaceg aggeaagetg atcageateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac tcttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 151
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 151
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
```

```
<210> 152
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 152
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaccg gggcaagetg atcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a
<210> 153
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 153
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaaactg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcggcta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 154
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 154
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcgtactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcggcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcggcta ctatgaaaag 360
ctcggcttca gcggacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacata a
<210> 155
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
```

```
<223> Synthetic DNA Sequence
<400> 155
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcageateg etteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 156
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 156
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagcta atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtccac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 157
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 157
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggeg gatattaceg gggcaageta atcagcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagag 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggatatctg cgagcgggta ctataaaaag 360
cteggettea gegaacaagg eggggtetae gacatacege eggteggaee teatattttg 420
atgtataaga aattgacgta a
<210> 158
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
atgattgaag tcaaaccaat aaacgcggaa gatgcgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg gggcacgttt 120
caccteggeg gatattaceg gggcaagetg atcageateg etteetttea teaageegaa 180
```

cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240

```
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 159
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 159
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 160
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 160
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 161
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 161
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 162
```

<210> 162 <211> 441

```
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 162
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattaceg gggcaagetg gtetgcateg etteetttea taaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgatgga 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcgaaaa 300
aaaggcgcgg accttttatg gtgcaatgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 163
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 163
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaageegag 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 164
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 164
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctcgg gggcacgttt 120
catctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae gettgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 165
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 165
```

```
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
eggeegaate ageegettga ageatgtatg tatgaaaceg atttgetegg gggeaegttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 166
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 166
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgtgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagtgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 167
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 167
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagtggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 168
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 168
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg aaatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegae aettgaaggg 240
taccgcgagc aaaaagcggg aagtacgctc atccgccatg ccgaagagct tctacggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
```

```
441
atgtataaga aattgacgta a
<210> 169
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 169
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccttggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctettatg gtgcaacgce aggacatetg egagegggta etataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 170
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 170
atgattgaag tcaaaccaat aaacgcggag gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccttggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgactgggcc ccatattttg 420
atgtataaga aattgacgta a
<210> 171
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 171
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga cgcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctcttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcqqcttca qcqaacaqqq cqaaqtctac qacataccqc cqqtcqqacc tcatattttq 420
atgtataaga aattgacgta a
<210> 172
<211> 441
<212> DNA
```

<213> Artificial Sequence

```
<220>
<223> Synthetic DNA Sequence
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
caccteggeg gatattaceg gggcaagetg gteageateg ceteetttea teaagetgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaag 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacacaccgc cggtcggacc ccatattttg 420
atgtataaga agttgacgta a
                                                                   441
<210> 173
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 173
atgattgaag tcaagccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atatgctcag gggtgcgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccacgage aaaaageggg aageacgete ateegeeatg eegaagaget tetteggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttta gcgaacaggg cgaagtctac aacacaccgc cggttggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 174
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 174
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgtaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacactt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 175
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 175
atgattgaag taaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcgttctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcgagctg gtcagcatcg cttcctttca tcaagccgaa 180
```

```
catccaqaqc ttqaaqqcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccqtqaqc aaaaagcqqq caqtacqctt atccqccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 176
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 176
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgtatg tatgaaactg atttgctcgg gggcacgttt 120
caccteggeg gatattaceg gggcaagetg atcagcateg ceteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actcgaagga 240
taccgcgagc aaaaagcggg cagtacgcta atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag acctettatg gtgcaacgce aggacatetg egagegggta etataaaaag 360
ctcggcttca gcgatcaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 177
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 177
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agataaggca ccgcatcctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacttaccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 178
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 178
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
cacctcggtg gatattaccg gggcaagctg gtcagcattg cttcctttca tcaagccgaa 180
catccagagc ttgagggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgggc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
```

```
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 179
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
aggccgaatc agccgctaga agcatgcaag tatgaaaccg atttgctcag gggtgcgttt 120
caccteggtg gatattaceg gggcaagetg atcageateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagcgct tcttcggaaa 300
aaaggcgcgg accttttgtg gtgcaacgcc aggacgtctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 180
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 180
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaactg atttgctagg gggtacgctt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagage ttgaaggeca aaaacagtat cagetgagag ggatggegac aettgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggcgcgg accttatatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacata a
<210> 181
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 181
atgattgaag tcaaaccaat aaatgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg aggcacgttt 120
cacctaggtg gatattaccg gggcaagctg atcagcatcg cttcctttaa tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacata a
<210> 182
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
```

```
<400> 182
atgattgaag tcaaaccaat aaccgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac actagaaggg 240
taccgcgagc aaaaagcggg cagtacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc agaacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgaccggacc ccatattttg 420
atgtataaga aattgacgta a
<210> 183
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 183
atgattgaag tcaaaccaat aaacgcggaa gatgcgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gagcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagag 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc ctgtcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 184
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 184
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
caccteggtg gatattaceg gggcaagetg atetgcateg ceteetttea teaageegaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagaggcta ctatgaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcgta a
<210> 185
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 185
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgttgga agcatgcaag tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca taaagccgaa 180
cattcagagc ttgagggcga agaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatctg tgagcgggta ctataaaaaag 360
```

```
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 186
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 186
atgatagaag tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgactcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacaaccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 187
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 187
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgactcta attaaacacg ctgaacaact tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
                                                                   438
atgtataaaa agatcaca
<210> 188
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 188
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaacaact tcttcgtaag 300
aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggettea gegageaggg agaggtattt gataegeege eagtaggaee teacateetg 420
atgtataaaa ggatcaca
                                                                   438
<210> 189
<211> 438
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Synthetic DNA Sequence
<400> 189
atgctagagg tgaaactgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgttaga agcgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tttcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcga acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca
<210> 190
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 190
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca
<210> 191
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 191
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agcgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcaggcc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtata attaaacacg ctgaagaaat tcttcgtaag 300
aagggggcgg acttgctttg gtgcaatgcg cggacgtccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca
<210> 192
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 192
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
```

```
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tategtgage agaaageggg ategaeteta attagacaeg etgaacaact tettegtaag 300
agggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca
                                                                   438
<210> 193
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 193
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 194
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 194
atgatagaag tgaaaccgat taacgcagag gagacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaact tcttcgtaag 300
aagggggcga atatgctttg gtgtaatgcg cggacaaccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
                                                                   438
atgtataaaa ggatcaca
<210> 195
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 195
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcactt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tttcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg aaaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcaca
                                                                   438
```

```
<210> 196
<211> 438
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 196
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tategtgate agaaageggg ategagteta attagacaeg etgaacaaat tettegtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca
<210> 197
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 197
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgctt 120
cacctcggtg gatattaccg gggcaagctg gtcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg cgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cggtcggacc tcatattttg 420
atgtataaga aattgacgta a
                                                                   441
<210> 198
<211> 438
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 198
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tttcgtgagc agaaagcggg atcgactcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
                                                                   438
atgtataaaa ggatcaca
<210> 199
<211> 438
<212> DNA
<213> Artificial Sequence
```

<223> Synthetic DNA Sequence

```
<400> 199
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaagaaat tcttcgtaag 300
aagggggcga acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcaca
<210> 200
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<221> misc_feature
<222> 134, 313
<223> n = A,T,C or G
<400> 200
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gctnttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tategtgate agaaageggg ategagteta attaaacaeg etgaacaaat tettegtaag 300
aggggggggg acntgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggettea gegageaggg agagatattt gataegeege eagtaggace teacateetg 420
atgtataaaa ggctcacata a
<210> 201
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 201
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
                                                                   441
atgtataaaa ggatcacata a
<210> 202
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 202
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
```

```
agaccaaacc agccgataga agcgtgtatg tttgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaaqcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggggg acatgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 203
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 203
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tttcgtgagc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 204
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 204
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tttgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
taccgcgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 205
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 205
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
                                                                   441
```

```
<210> 206
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 206
atgatagaag tgaaaccgat taacgcagag gatacctatg aactgaggca taaaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cacccagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 207
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 207
atgctagagg tgaaaccgat taacgcagag gatacctatg aactgaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tttgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac caactccgag gtatggctac cttggaaggt 240
tttcgtgagc agaaagcggg atcgactcta attagacacg ctgaagaaat tcttcgtaag 300
agggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaagg 360
ttaggcttca gcgagcaggg agagatattt gacacgccgc cagtagggcc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 208
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 208
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tttgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cacteggaac tecaaggeca gaaacagtac cageteegag gtatggetac ettggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 209
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
```

<223> Synthetic DNA Sequence <400> 209 atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60 agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120 cacttgggcg gcttttacgg gggcaaactg atttccatag cgtcattcca ccaggccgag 180 cacccagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240 tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaact tcttcgtaag 300 agggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360 ttaggcttca gcgagcaggg agagatattc gaaacgccgc cagtaggacc tcacatcctg 420 atgtataaaa ggatcacata a <210> 210 <211> 441 <212> DNA <213> Artificial Sequence <223> Synthetic DNA Sequence <400> 210 atgatagaag tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60 agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcactt 120 cacttaggcg gctattacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180 cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240 tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300 aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360 ttaggettea gegageaggg agaggtattt gacaegeege eagtaggace teacateetg 420 atgtataaaa ggatcacata a <210> 211 <211> 441 <212> DNA <213> Artificial Sequence <220> <223> Synthetic DNA Sequence <400> 211 atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60 agaccaaacc agccgataga agcgtgtatg tttgaaagcg atttacttcg tggtgcattt 120 cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180 cactcagacc tcgaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240 tatcgtgagc agaaagcggg atcgactcta attagacacg ctgaagaaat tcttcgtaag 300 agggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360 ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420 atgtataaaa ggatcacata a <210> 212 <211> 441 <212> DNA <213> Artificial Sequence <220> <223> Synthetic DNA Sequence <400> 212 atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60 agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120 cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180

cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240

```
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 213
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 213
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 214
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 214
atgatagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggccaattg atctcgattg cgagtttcca caaagctgaa 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
ttccgtgagc agaaggctgg ctcttcgctt attaggcacg ccgaggagat actacggaat 300
aaaggggcag atctgctttg gtgtaatgca cgcacgacag cctccggtta ctataaaagg 360
cttggtttta gtgagcacgg cgaagttttc gaaaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gaatcact
                                                                   438
<210> 215
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 215
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagaac tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
ttccgtgagc agaaggctgg ctcttcgctt attaggcacg ccgaggagat actacggaaa 300
agaggggcag atctgctttg gtgtaatgca cgcacgacag ccgccggtta ctataaaaaag 360
cttggtttta gtgagcaggg cgaaattttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gaatcact
                                                                   438
```

<210> 216 <211> 438

```
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 216
atgatagaag tgaaacctat taacgcagag gatacttacg aaattcgaca caggatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
cattigggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgatc agaaggctgg ctcttcgctt attaggcacg ccgagcagat actacggaaa 300
agaggggcag atctgctttg gtgcaatgca cgcacgacag ccgccggtta ctataaaagg 360
cttggtttta gtgagcaggg cgaagttttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa aactcact
<210> 217
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 217
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cagtcagaac tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgatc agaaggctgg ctctacgctt attaagcacg ccgaggagat actacggaaa 300
aaaggggcag atctgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaagg 360
cttqqtttta qtqaqcaggq cgaaattttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gactcact
<210> 218
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 218
atgatagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaaccg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagaac tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
ttccgtgatc agaaggctgg ctcttcgctt attaagcacg ccgaggagat actacggaaa 300
agaggggcag atctgctttg gtgcaatgca cgcacgtcag cctccggtta ctataaaaaag 360
cttggtttta gtgagcaggg cgaaattttc gaaaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gactcact
<210> 219
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 219
```

```
atgctagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaaccg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggccaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaagcacg ccgaggagct actacggaaa 300
aaaggggcag atctgctttg gtgcaatgca cgcacgacag ccgccggtta ctataaaaag 360
cttggtttta gtgagcaggg cgaagttttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa aaatcact
<210> 220
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 220
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaagcg atctgctgcg gagcgcattc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca caaagctgaa 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgatc agaaggctgg ctcttcgctt attaggcacg ccgaggagat actacggaaa 300
agaggggcag atatgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaaagg 360
cttggtttta gtgagcaggg cgaagttttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gaatcactta a
<210> 221
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 221
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctcttcgctt attaagcacg ccgagcagct actacggaaa 300
aaaggggcag atatgctttg gtgtaatgca cgcacgtcag ccgccggtta ctataaaaagg 360
cttggtttta gtgagcacgg cgaaattttc gaaaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gaatcact
<210> 222
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 222
atgctagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaaccg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cattcagaac tggaagggca aaagcagtat caattacgag ggatggcgac tctcgaagga 240
taccgtgatc agaaggctgg ctcttcgctt attaggcacg ccgaggagat actacggaaa 300
agaggggcag atatgctttg gtgcaatgca cgcacgacag ccgccggtta ctataaaaag 360
cttggtttta gtgagcaggg cgaaatttac gacaccccgc cggttgggcc gcacattctt 420
```

```
438
atgtacaaaa aactcact
<210> 223
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 223
atgatagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaaccg atctgctgcg gggcgcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgac 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaggcacg ccgagcagat actacggaaa 300
agaggggcag atctactttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaaaag 360
cttggtttta gtgagcacgg cgaaattttc gaaaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gactcactta a
<210> 224
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 224
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggcgcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctcttcgctt attaggcacg ccgaggagat actacggaaa 300
aaaggggcag atatgctttg gtgcaatgca cgcacgacag ccgccggtta ctataaaagg 360
cttggtttta gtgagcaggg cgaagttttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gaatcact
<210> 225
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 225
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtaag 300
aggggggggg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 226
<211> 438
<212> DNA
```

<213> Artificial Sequence

```
<220>
<223> Synthetic DNA Sequence
atgatagaag tgaaacctat taacgcagag gagacttacg aacttcgaca gaggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggccaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaagcacg ccgaggagat actacggaaa 300
aaaggggcag atctgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaagg 360
cttggtttta gtgagcacgg cgaaattttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gaatcact
                                                                   438
<210> 227
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 227
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaaccg atctgctgcg gggcgcgttc 120
catttgggcg ggtactatcg tggccaattg atctcgattg cgagtttcca caaagctgaa 180
cactcagaac tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaagcacg ccgagcagct actacgggaa 300
aaaggggcag atatgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaagg 360
cttggtttta gtgagcaggg cgaagttttc gacaccccgc cggttgggcc gcacattctt 420
                                                                   438
atgtacaaaa aactcact
<210> 228
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 228
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca caaagctgaa 180
cactcagacc tggaagggca aaaccagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaggcacg ccgaggagat actacggaaa 300
agaggggcag atatgctttg gtgcaatgca cgcacgtcag cctccggtta ctataaaagg 360
cttggtttta gtgagcacgg cgaaattttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gactcactta a
<210> 229
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 229
atgctagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaaccg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggccaattg atctcgattg cgagtttcca caaagctgaa 180
```

```
cactcagacc tggaaggga aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaggcacg ccgagcagat actacggaaa 300
agaggggcag atatgctctg gtgcaatgca cgcacgtcag ccgccggtta ctataaaagg 360
cttggtttta gtgagcaggg cgaagttttc gaaaccccgc cggttgggcc gcacattctt 420
                                                                   438
atgtacaaaa gactcact
<210> 230
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 230
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaaccg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tgcaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgagc agaaggctgg ctctacgctt attaggcacg ccgagcagct actacggaaa 300
agaggggcag atctgctttg gtgcaatgca cgcacgtcag cctccggtta ctataaaagg 360
cttggtttta gtgagcacgg cgaagttttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa gactcact
<210> 231
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 231
atgctagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgttaga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggtactatcg tggccaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagaac tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
ttccgtgagc agaaggctgg ctctacgctt attaagcacg ccgagcagat actacggaaa 300
agaggggcag atatgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaaaag 360
cttggtttta gtgagcacgg cgaaattttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa aactcactta a
<210> 232
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 232
atgatagaag tgaaacctat taacgcagag gagacttacg aacttcgaca caggatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggcaaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tagaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgatc agaaggctgg ctctacgctt attaagcacg ccgaggagct actacggaaa 300
agaggggcag atatgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaagg 360
cttggtttta gtgagcacgg cgaaatttac gaaaccccgc cggttgggcc gcacattctt 420
atgtacaaaa aaatcact
                                                                   438
```

```
<211> 438
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 233
atgatagaag tgaaacctat taacgcagag gatacttacg aacttcgaca caagatcctg 60
cgccctaatc agccgataga ggcatgcatg tatgaaagcg atctgctgcg gggctcgttc 120
catttgggcg ggttctatcg tggccaattg atctcgattg cgagtttcca ccaagctgaa 180
cactcagacc tggaagggca aaagcagtat caattacgag ggatggcgac cctcgaagga 240
taccgtgatc agaaggctgg ctcttcgctt attaagcacg ccgaggagat actacggaaa 300
agaggggcag atctgctttg gtgcaatgca cgcacgtcag ccgccggtta ctataaaagg 360
cttggtttta gtgagcaggg cgaaattttc gacaccccgc cggttgggcc gcacattctt 420
atgtacaaaa aaatcact
<210> 234
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 234
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta gttaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 235
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 235
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacgtccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 236
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
```

```
<400> 236
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gctattacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
agggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
                                                                   441
atgtataaaa ggatcacata a
<210> 237
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 237
atgatagaag tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 238
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 238
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cacccagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
agggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 239
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 239
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agcgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagace tecaaggeca gaaacagtae cageteegag gtatggetae ettggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
```

agggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360

11 0

```
ttaggettea gegageaggg agagatattt gaaacgeege eagtaggace teacateetg 420
atgtataaaa ggatcacata a
<210> 240
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 240
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agacccaacc agccgataga agtgtgtatg tatgaaagcg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 241
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 241
atgatagaag tgaaacctat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggettea gegageaggg agagatattt gaaaegeege eagtaggaee teacateetg 420
atgtataaaa ggatcacata a
<210> 242
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 242
atgatagaag tgaaacctat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
agggggggg acatgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 243
<211> 441
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Synthetic DNA Sequence
<221> misc_feature
<222> 9, 76, 98
<223> n = A, T, C or G
<400> 243
atgctagang tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgntaga agtgtgtatg tatgaaancg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attaaacacg ctgaacaaat tcttcgtgag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggettea gegageaggg agaggtattt gacaegeege eagtaggace teacateetg 420
atgtataaaa ggctcacata a
<210> 244
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 244
atgctagaag tgaaacctat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaag 360
ttaggcttca gcgagcaggg agagatattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 245
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 245
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cgtcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacagaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 246
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
```

```
<400> 246
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg ggaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 247
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 247
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggettea gegageaggg agaggtattt gaaaegeege eagtaggaee teacateetg 420
atgtataaaa ggctcacata a
<210> 248
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 248
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaacaaat tcttcgtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 249
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 249
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cacteggace tecaaggeca gaaacagtae cageteegag gtatggetae ettggaaggt 240
tatcgtgatc agaaagcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300
```

```
aggggggcgg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gacacgccgc cagtaggacc tcacatcctg 420
atgtataaaa agatcacata a
<210> 250
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 250
atgctagaag tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacgg gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgatc agaaagcggg atcgactcta attaaacacg ctgaacaaat tcttcgtaag 300
agggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gaaacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacata a
<210> 251
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 251
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
agggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacata a
<210> 252
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 252
atgatagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagagtactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attaaacacg ctgaagaaat tcttcgtaag 300
aggggggcgg acttgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gagacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggctcacgta a
<210> 253
```

<211> 441

<212> DNA

```
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 253
atgctagagg tgaaaccgat taacgcagag gatacttacg aactaaggca taaaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agagatattt gatacgccgc cagtaggacc tcacatcctg 420
atgtataaaa ggatcacgta a
<210> 254
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 254
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca tagaatactc 60
agaccaaacc agccgataga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gcttttacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagaac tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tategtgage agaaageggg ategagteta attaaacaeg etgaagaaat tettegtaag 300
aggggggggg acatgctttg gtgcaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggettea gegageaggg agagatattt gaaacgeege eagtaggace teacateetg 420
atgtataaaa ggctcacata a
<210> 255
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 255
atgctagagg tgaaaccgat taacgcagag gatacctatg aactaaggca taaaatactc 60
agaccaaacc agccgttaga agtgtgtatg tatgaaaccg atttacttcg tggtgcattt 120
cacttaggcg gctattacag gggcaaactg atttccatag cttcattcca ccaggccgag 180
cactcagacc tccaaggcca gaaacagtac cagctccgag gtatggctac cttggaaggt 240
tatcgtgagc agaaagcggg atcgagtcta attagacacg ctgaagaaat tcttcgtaag 300
aggggggggg acttgctttg gtgtaatgcg cggacatccg cctcaggcta ctacaaaaaag 360
ttaggcttca gcgagcaggg agaggtattt gatacgccgc cagtaggacc tcacatcctg 420
                                                                   441
atgtataaaa ggctcacata a
<210> 256
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 256
atgattgaag tcaaacctat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
```

```
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggcg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaagga 240
taccgtgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcgg accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 257
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 257
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cctcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaatgcc aggacatttg tgagcggtta ctatgaaaag 360
ctcggtttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc ttatattttg 420
atgtattaga aattgacata a
<210> 258
<211> 441
<212> DNA
<213> Artificial Sequence
<223> Synthetic DNA Sequence
<400> 258
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggtacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg tagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaagg cggggtctgc gatataccgc cgatcggacc tcatattttg 420
atgtataaga aattggcata a
<210> 259
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 259
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a
```

```
<210> 260
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 260
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgctgga agcatgcaag tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca taatgccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac gcttgaaggg 240
taccgcgagc aaaaagcggg aagcacgctc atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaag 360
ctcggcttca gcgaacaggg cgaagtctac gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacgta a
<210> 261
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 261
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcatactc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
caccteggtg gatattaceg gggcaagetg atcagcateg etteetttea teaageegaa 180
catccagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaaggg 240
taccgcgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aaaggcgcag accttttatg gtgcaacgcc aggacatctg tgagcggcta ctatgaaaag 360
ctcggcttca gcgaacaggg cgaagtctgc gacataccgc cgatcggacc tcatattttg 420
atgtataaga aattgacata a
<210> 262
<211> 441
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic DNA Sequence
<400> 262
atgattgaag tcaaaccaat aaacgcggaa gatacgtatg agatcaggca ccgcattctc 60
cggccgaatc agccgcttga agcatgtatg tatgaaaccg atttgctcgg gggcacgttt 120
cacctcggtg gatattaccg gggcaagctg atcagcatcg cttcctttca tcaagccgaa 180
cattcagagc ttgaaggcca aaaacagtat cagctgagag ggatggcgac acttgaagga 240
taccgtgagc aaaaagcggg cagtacgctt atccgccatg ccgaagagct tcttcggaaa 300
aagggggcag accttttatg gtgcaacgcc aggacatctg tgagcgggta ctataaaaaag 360
ctcggcttca gcgaacaagg cggggtctac gatataccgc cgatcggacc tcatattttg 420
                                                                   441
atgtataaga aattgacgta a
<210> 263
<211> 146
<212> PRT
<213> Artificial Sequence
```

<220>

```
<400> 263
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           1.00
                               105
                                                   110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 264
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 264
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Arg Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 265
<211> 146
```

<212> PRT

<213> Artificial Sequence

```
<220>
<223> Synthetic Protein Sequence
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                   10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Gly Ser Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly.
                    70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                       120
                                              125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                      135
Leu Thr
145
<210> 266
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 266
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                   10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                   110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                          120
                                               125
Val Tyr Asp Thr Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                   135
  130
Leu Thr
145
<210> 267
<211> 146
<212> PRT
<213> Artificial Sequence
```

J

```
<223> Synthetic Protein Sequence
<400> 267
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Thr Pro Pro Ala Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 268
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 268
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
       115
                                               125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 269
<211> 146
```

^

<212> PRT

```
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
      115
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                        135
Leu Thr
145
<210> 270
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 270
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
```

<210> 271 <211> 146

```
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 271
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                       135
Leu Thr
145
<210> 272
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 272
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
```

```
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                           120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                       135
Leu Thr
145
<210> 274
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 274
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Arg Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
```

```
<210> 275
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 275
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
  130
Leu Thr
145
<210> 276
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 276
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
```

```
<210> 277
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 277
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                               125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 278
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 278
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
```

```
<210> 279
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 279
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                             60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu.
                            120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 280
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 280
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                             60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
        115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
    130
                        135
```

Leu Thr

```
<210> 281
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 281
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           1.00
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
      115
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 282
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 282
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
```

```
Leu Thr
145
<210> 283
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 283
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
               135
Leu Thr
145
<210> 284
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 284
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
            20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
```

Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly 120

Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys

```
130
                       135
                                           140
Leu Ala
145
<210> 285
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 285
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Val Arg Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 286
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 286
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
               . 70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
                                                   110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
```

```
Val His Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
145
<210> 287
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 287
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 288
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 288
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
```

Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly

```
115
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
             135
 130
Leu Thr
145
<210> 289
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 289
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
      115
Val Tyr Asp Ala Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 290
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 290
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
```

```
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 291
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 291
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
                                                   110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 292
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 292
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
```

Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr

```
100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 293
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 293
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
           20
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
      115
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 294
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 294
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
```

```
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                               125
       115
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 295
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 295
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
                                                   110
Ser Ala Ser Gly Tyr Tyr Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 296
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 296
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
```

```
85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                            120
                                                125
Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 297
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 297
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 298
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 298
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
```

```
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
    130
                        135
Leu Thr
145
<210> 299
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 299
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met His Lys Lys
   130
                       135
Leu Thr
145
<210> 300
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 300
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
           20
Thr Asp Ser Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
        35
                            40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                        55
```

Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly

```
70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 301
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 301
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                               25
Thr Asp Leu Leu Arg Ser Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 302
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 302
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Ser Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
```

```
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 303
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 303
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
                                                    110
Ser Ala Arg Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 304
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 304
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                                25
                                                    30
Thr Asp Ser Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
```

```
55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
      115
                            120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 305
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 305
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 306
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 306
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
                                                    30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
        35
                            40
```

```
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 307
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 307
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
       115
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 308
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 308
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
```

```
40
        35
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                        135
Leu Thr
145
<210> 309
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 309
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Ser Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            1.00
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Thr Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 310
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 310
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
```

```
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Arg Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 311
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 311
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20
                               25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 312
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 312
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                   10
```

His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu

```
20
Thr Asp Leu Cly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 313
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 313
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
            20
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
     115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 314
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 314
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ala Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 315
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 315
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Ser Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
        115
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
145
<210> 316
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 316
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Thr Pro Pro Val Gly Pro His Val Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 317
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 317
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Met Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                       135
Leu Thr
145
<210> 318
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 318
```

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
       115
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 319
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 319
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Leu Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
Val Tyr Asp Thr Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 320
<211> 146
<212> PRT
<213> Artificial Sequence
```

<223> Synthetic Protein Sequence

```
<400> 320
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Thr Pro Pro Ala Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                      135
Leu Thr
145
<210> 321
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 321
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Lys His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
       115
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
    130
Leu Thr
145
<210> 322
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
```

```
<400> 322
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
      115
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 323
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 323
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                   110
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 324
<211> 146
<212> PRT
<213> Artificial Sequence
```

<220>

```
<400> 324
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
Leu Thr
145
<210> 325
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 325
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Thr Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 326
<211> 146
```

<210> 326 <211> 146 <212> PRT <213> Artificial Sequence

```
<220>
<223> Synthetic Protein Sequence
<400> 326
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 327
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 327
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Arg Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
   130
Leu Thr
145
<210> 328
<211> 146
<212> PRT
<213> Artificial Sequence
```

```
<223> Synthetic Protein Sequence
<400> 328
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10 .
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 329
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 329
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
       115
                           120
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 330
<211> 146
```

<212> PRT

<213> Artificial Sequence <220> <223> Synthetic Protein Sequence <400> 330 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg 10 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu 25 Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly 40 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu 55 60 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly 70 75 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu 90 85 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr 100 105 110 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu 120 125 Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys 130 135 Leu Thr 145 <210> 331 <211> 146 <212> PRT <213> Artificial Sequence <223> Synthetic Protein Sequence <400> 331 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg 10 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu 25 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly 40 Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu 55 60 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly 70 75 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu 90 85 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr 105 110 100 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Lys 120 125 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys 135 130 Leu Thr 145 <210> 332

<210> 332 <211> 146

```
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 332
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                2.5
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
                                                45
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 333
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 333
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
                                                    30
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Val Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Thr Pro Pro Ala Gly Pro His Ile Leu Met Tyr Thr Lys
   130
                        135
Leu Thr
145
```

```
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 334
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                   10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 335
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 335
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Lys Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Cly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                 135
   130
Leu Thr
145
```

```
<210> 336
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 336
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 337
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 337
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
       115
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
145
```

```
<210> 338
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 338
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Lys
                          120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 339
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 339
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Arg Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                        135
Leu Thr
145
```

```
<210> 340
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 340
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg Tyr Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
                                                    110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 341
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 341
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Gln Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Gly Leu
                        55
                                            60
Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
```

```
<210> 342
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 342
Met Ile Asp Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 343
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 343
Met Ile Glu Val Lys Pro Ile Ser Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
```

```
Leu Thr
145
<210> 344
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 344
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
           100
                               105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Ala
145
<210> 345
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 345
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                                    30
                                25
            20
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Cys Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
```

Ser Val Arg Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Gly 120

Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys

115

```
135
                                           140
   130
Leu Ala
145
<210> 346
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 346
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Cys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 347
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 347
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Val Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
            100
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
```

```
Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Ala
145
<210> 348
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 348
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
           20
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
   130
Leu Thr
145
<210> 349
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 349
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
           20
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                            105
            100
```

Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu

```
115
                           120
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                    135
Leu Thr
145
<210> 350
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 350
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Ala
145
<210> 351
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 351
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Asp
                           40
Arg Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
```

```
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 352
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 352
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Cly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
           100
                               105
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Ala
145
<210> 353
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 353
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
                                                    30
Thr Asp Leu Cly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
```

```
100
                               105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                           120
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                       135
Leu Ala
145
<210> 354
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 354
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Asp
                           40
Arg Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
                               105
            100
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 355
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 355
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                           40
Lys Leu Ile Ser Thr Ala Ser Phe His Gln Ala Gly His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Arg Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
```

```
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 356
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 356
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Phe Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 357
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 357
Met Ile Glu Val Arg Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Cly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
```

75

Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu

```
85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                               125
      115
                           120
Ala Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
            . 135
Leu Thr
145
<210> 358
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 358
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
            20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                       75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 359
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 359
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
```

```
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
   130
Leu Thr
145
<210> 360
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 360
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Pro Ala Glu His Ser Glu Leu
                                            60
                       55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                               105
                                                   110
           100
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
   130
Leu Thr
145
<210> 361
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 361
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                       55
```

Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly

```
70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Lys Gln Gly Glu
       115
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 362
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 362
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 363
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 363
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
```

```
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
Tyr Arg Gly Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 364
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 364
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Asp
                           40
Arg Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg Tyr Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
  130
Leu Thr
145
<210> 365
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 365
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
```

```
55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 366
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 366
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 367
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 367
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
```

```
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 368
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 368
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro Tyr Ile Leu Met Tyr Lys Lys
                        135
  130
Leu Thr
145
<210> 369
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 369
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
```

Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly

```
40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 370
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 370
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 371
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 371
Met Ile Glu Val Asn Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                5
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
```

```
Thr Asp Leu Leu Gly Gly Thr Ser His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                        55
Asp Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Ser Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 372
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 372
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Ala
145
<210> 373
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 373
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
```

His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu

```
25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ser Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Leu Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
  130
Leu Thr
145
<210> 374
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 374
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
      115
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 375
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 375
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
       115
Val Tyr Gly Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 376
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 376
Met Ile Glu Ala Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 377
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 377
```

Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg

```
5
                                   10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
        20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           1.00
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
Leu Thr
145
<210> 378
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 378
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
           20
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
                                105
           100
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 379
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 379
```

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               8.5
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 380
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 380
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Gln Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Val His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
                                                    110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 381
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
```

<223> Synthetic Protein Sequence

```
<400> 381
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly His Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
Leu Thr
145
<210> 382
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 382
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 383
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
```

<223> Synthetic Protein Sequence

<400> 383 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg 10 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu 25 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly 40 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu 55 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly 70 75 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu 90 85 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr 105 100 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly 120 125 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys 135 130 Leu Thr 145 <210> 384 <211> 146 <212> PRT <213> Artificial Sequence <223> Synthetic Protein Sequence <400> 384 Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg 10 His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu 25 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly 40 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Val His Ser Glu Leu 60 55 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly 70 75 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu 90 85 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr 105 100 Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly 120 125 Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys 130 135 Leu Thr 145 <210> 385 <211> 146

<212> PRT <213> Art:

<213> Artificial Sequence

<220>

```
<400> 385
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Ala Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Asn Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Val Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 386
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 386
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg. Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Arg Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
```

<210> 387 <211> 146 <212> PRT <213> Artificial Sequence

```
<220>
<223> Synthetic Protein Sequence
<221> unsure
<222> 17
<223> Xaa = His or Pro
<400> 387
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
Xaa Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                2.5
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 388
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 388
Met Ile Glu Ala Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
    130
                        135
Leu Thr
```

```
<210> 389
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 389
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
  130
Leu Thr
145
<210> 390
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 390
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                                            140
    130
Leu Thr
```

```
<210> 391
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 391
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg Gln Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                                                125
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Glu
                        135
   130
Leu Thr
145
<210> 392
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 392
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                            120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
145
```

```
<210> 393
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 393
Met Ile Glu Val Lys Pro Ile Asn Ala Gly Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
Leu Thr
145
<210> 394
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 394
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                                    30
            20
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
```

Leu Thr

```
<210> 395
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 395
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Val Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 396
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 396
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Arg Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Gly Leu
                        55
                                            60
Glu Gly Lys Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
```

```
Leu Thr
145
<210> 397
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 397
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Glu Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                    135
Leu Thr
145
<210> 398
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 398
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Asp Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
```

Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu

120 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys

```
130
                       135
                                           140
Leu Thr
145
<210> 399
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 399
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Gly
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu Gln Pro Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                          120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
   130
Leu Thr
145
<210> 400
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 400
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
        115
                           120
```

```
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
    130
                        135
Leu Thr
145
<210> 401
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 401
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Pro Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
                                            140
Leu Thr
145
<210> 402
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 402
Met Ile Glu Ile Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
            20
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
```

Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu

```
120
       115
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
              135
  130
Leu Thr
145
<210> 403
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 403
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 404
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 404
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
```

```
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 405
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 405
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 406
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 406
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Gly Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
```

Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr

```
100
                               105
Ser Ala Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Gly Gln Gly Glu
                                               125
      115
                           120
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
             135
  130
Leu Thr
145
<210> 407
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 407
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
           20
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                   70
                                       75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 408
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 408
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
```

```
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val His Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 409
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 409
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Ile
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 410
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 410
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Ala Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
```

Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu

p. 1

```
85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                                                125
       115
                            120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                       135
Leu Thr
145
<210> 411
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 411
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 412
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 412
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
```

```
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                            120
                                                125
       115
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 413
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 413
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                       135
Leu Thr
145
<210> 414
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 414
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
            20
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Cys Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                      55
```

Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Asp Gly

```
70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 415
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 415
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                                        75
                   70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                                                125
                           120
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 416
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 416
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
    50
                        55
```

```
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 417
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 417
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                                                125
                          120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 418
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 418
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
```

```
55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
       115
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
  130
Leu Thr
145
<210> 419
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 419
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Val Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 420
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 420
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
        35
```

```
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
145
<210> 421
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 421
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 422
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 422
Met Ile Glu Ala Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
```

```
35
                           40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Thr Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
       115
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Leu Thr
145
<210> 423
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 423
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Asp Ala Cys Lys Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 424
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 424
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
```

```
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                           120
                                                125
Val Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 425
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 425
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Met Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                       . 75
Tyr His Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                            120
Val Tyr Asn Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 426
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 426
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
```

```
20
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Val Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 427
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 427
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Glu Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 428
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 428
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Asp Gln Gly Glu
                                                125
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 429
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 429
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Leu Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 430
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 430
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
5
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
        20
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Val Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Gly Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
                                                125
                           120
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
  130
Leu Thr
145
<210> 431
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 431
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Ala
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 432
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 432
```

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Leu His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Ile Trp Cys Asn Ala Arg Thr
           100
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 433
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 433
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe Asn Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 434
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
```

```
<400> 434
Met Ile Glu Val Lys Pro Ile Thr Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                   90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
       115
                           120
Val Tyr Asp Ile Pro Pro Thr Gly Pro His Ile Leu Met Tyr Lys Lys
  130
                      135
Leu Thr
145
<210> 435
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 435
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Ala Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
           20
                                25
Thr Asp Leu Leu Gly Ser Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Glu
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 436
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
```

```
<400> 436
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Gln Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                       55
                                           60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                   90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Tyr Asp Ile Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                       135
Leu Ala
145
<210> 437
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 437
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                   10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Glu Glu Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                   110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Leu Thr
145
<210> 438
<211> 146
<212> PRT
```

<220>

<213> Artificial Sequence

```
<400> 438
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Thr Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 439
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 439
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Gln
                                    90
               85
Leu Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                        135
Ile Thr
145
<210> 440
<211> 146
<212> PRT
<213> Artificial Sequence
```

```
<220>
<223> Synthetic Protein Sequence
<400> 440
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
                                    90
               85
Leu Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 441
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 441
Met Leu Glu Val Lys Leu Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asn Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 442
<211> 146
<212> PRT
<213> Artificial Sequence
```

```
<223> Synthetic Protein Sequence
<400> 442
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Leu Thr
145
<210> 443
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 443
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Gly Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Ile Ile Lys His Ala Glu Glu
               85
Ile Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Ile Thr
145
<210> 444
<211> 146
```

<212> PRT

```
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 444
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                       55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
                                    90
               85
Leu Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                               125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Leu Thr
145
<210> 445
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 445
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                            120
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 446
```

<211> 146

```
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 446
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asn Met Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Thr Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 447
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 447
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Leu His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Lys
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
    130
Ile Thr
145
```

```
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 448
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                       55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                   90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                               125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Leu Thr
145
<210> 449
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 449
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
  130
Ile Thr
145
```

```
<210> 450
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 450
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
            100
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 451
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 451
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                85
                                    90
Ile Leu Arg Lys Lys Gly Ala Asn Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
```

```
<210> 452
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<221> unsure
<222> 45
<223> Xaa = Phe, Ser, Tyr, or Cys
<221> unsure
<222> 105
<223> Xaa = Leu, Met, or Val
<400> 452
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
            20
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Xaa Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                             60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Xaa Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Leu Thr
145
<210> 453
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 453
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    1.0
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
```

```
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 454
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 454
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Phe Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 455
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 455
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
```

```
85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 456
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 456
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Phe Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                                            60
                       55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                       75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Leu Thr
145
<210> 457
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 457
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
```

```
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 458
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 458
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    1.0
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Asp Leu
                                            60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
  130
Leu Thr
145
<210> 459
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 459
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Phe Glu
                                25
            20
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
```

```
65
                   70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 460
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 460
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Phe Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 461
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 461
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Asp Leu
```

```
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
               85
Leu Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 462
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 462
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Leu His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 463
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 463
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Phe Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
```

```
50
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
                85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Ile Thr
145
<210> 464
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 464
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    1.0
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Leu Thr
145
<210> 465
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 465
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
```

```
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Leu Thr
145
<210> 466
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 466
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Gln Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
                85
Ile Leu Arg Asn Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Thr Ala Ser Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
   130
Ile Thr
145
<210> 467
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 467
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
```

```
35
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Thr Ala Ala Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 468
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 468
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Thr Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 469
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 469
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
            20
                                25
```

```
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu Gln Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Leu Thr
145
<210> 470
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 470
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 471
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 471
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
```

```
25
Thr Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Gln Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Glu
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Thr Ala Ala Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
Ile Thr
145
<210> 472
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 472
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                                25
Ser Asp Leu Leu Arg Ser Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Ile Thr
145
<210> 473
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 473
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
```

```
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
                                    90
                85
Leu Leu Arg Lys Lys Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                                     110
                                105
            100
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 474
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 474
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                             60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
                85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
                                                     110
            100
Thr Ala Ala Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                 125
Ile Tyr Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                       135 ·
Leu Thr
145
<210> 475
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 475
```

Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg

```
5
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
           20
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Asp His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
                                    90
                85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ala Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu His Gly Glu
                                                125
                           120
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 476
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 476
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
            20
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Lys Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Thr Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
       115
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
    130
Ile Thr
145
<210> 477
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 477
```

```
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Gln Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                           40
Gln Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Glu
                                    90
Ile Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ala Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
       115
Ile Phe Asp Thr Pro Pro Ala Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                       135
Leu Thr
145
<210> 478
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 478
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
Gln Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                           40
Gln Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Ile Thr
145
<210> 479
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
```

```
<400> 479
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Gln Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Glu Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Gln
                                    90
               85
Leu Leu Arg Glu Lys Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                      135
Leu Thr
145
<210> 480
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 480
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Asp Leu
                        55
                                            60
Glu Gly Gln Asn Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
    130
Leu Thr
145
<210> 481
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
```

```
<400> 481
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
           20
Thr Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Gln Leu Ile Ser Ile Ala Ser Phe His Lys Ala Glu His Ser Asp Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Leu Thr
145
<210> 482
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 482
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Gln
                                    90
               85
Leu Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 483
<211> 146
<212> PRT
<213> Artificial Sequence
```

<220>

```
<400> 483
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Gln Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Phe Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Gln
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                               105
                                                   110
           100
Ser Ala Ala Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 484
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 484
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Glu Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
                                                45
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Asp Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu His Gly Glu
                           120
                                                125
Ile Tyr Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
   130
                       135
Ile Thr
145
<210> 485
```

<210> 485 <211> 146 <212> PRT <213> Artificial Sequence

```
<220>
<223> Synthetic Protein Sequence
<400> 485
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ser Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Gln Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ala Gly Tyr Tyr Lys Arg Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Ile Thr
145
<210> 486
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 486
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Val Lys His Ala Glu Glu
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Ile Thr
145
<210> 487
<211> 146
<212> PRT
```

<213> Artificial Sequence

```
<220>
<223> Synthetic Protein Sequence
<400> 487
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                   90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
                           120
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Leu Thr
145
<210> 488
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 488
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                2.5
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Gly Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 489
<211> 146
```

<212> PRT

```
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 489
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                               25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                                        75
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                         . 125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
<210> 490
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 490
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Ile Thr
145
```

<210> 491 <211> 146

```
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 491
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Ala Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Gly Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
  130
                        135
Ile Thr
145
<210> 492
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 492
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Ser Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
        115
                            120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
Ile Thr
145
```

```
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 493
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 494
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 494
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
        115
                            120
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Ile Thr
145
```

```
<210> 495
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<221> unsure
<222> 3
<223> Xaa = Asp or Glu
<221> unsure
<222> 26
<223> Xaa = Leu, Ile, or Val
<221> unsure
<222> 33
<223> Xaa = Ile, Thr, Asn, or Ser
<400> 495
Met Leu Xaa Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Xaa Glu Val Cys Met Tyr Glu
           20
                                25
Xaa Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Gln
                                    90
               85
Ile Leu Arg Glu Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                                    110
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Leu Thr
145
<210> 496
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 496
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
```

```
75
                   70
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 497
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 497
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
               85
                                    90
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Arg Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
 130
                        135
Leu Thr
145
<210> 498
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 498
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
```

```
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 499
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 499
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    1.0
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                            60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
                                                    110
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Leu Thr
145
<210> 500
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 500
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
```

```
55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Gln
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
       115
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
Leu Thr
145
<210> 501
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 501
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                                            60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
            100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Ile Thr
145
<210> 502
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 502
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Gly Gly
                            40
```

```
55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Asp Gln Lys Ala Gly Ser Thr Leu Ile Lys His Ala Glu Gln
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
           100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
       115
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Leu Thr
145
<210> 503
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 503
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
           20
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                                            60
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                                                125
       115
                            120
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
   130
Ile Thr
145
<210> 504
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 504
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Val Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
```

Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu

```
40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
Val Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                       135
Leu Thr
145
<210> 505
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 505
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                        55
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
               85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                                105
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
Ile Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Ile Thr
145
<210> 506
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 506
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Ile Glu Val Cys Met Tyr Glu
```

```
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Phe Tyr Arg Gly
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Lys His Ala Glu Glu
                                    90
                85
Ile Leu Arg Lys Arg Gly Ala Asp Met Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                            120
                                                125
Ile Phe Glu Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
                        135
    130
Leu Thr
145
<210> 507
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 507
Met Leu Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Leu Arg
                                    10
His Lys Ile Leu Arg Pro Asn Gln Pro Leu Glu Val Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Arg Gly Ala Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Asp Leu
                        55
                                             60
Gln Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Ser Leu Ile Arg His Ala Glu Glu
                                    90
                85
Ile Leu Arg Lys Arg Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
            100
                                105
                                                    110
Ser Ala Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                 125
        115
Val Phe Asp Thr Pro Pro Val Gly Pro His Ile Leu Met Tyr Lys Arg
   130
                        135
Leu Thr
145
<210> 508
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 508
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
```

```
25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
           100
                               105
                                                    110
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                       135
  130
Leu Thr
145
<210> 509
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 509
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
           20
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                                                45
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                       55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                   70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
           100
                               105
Phe Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
      115
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro Tyr Ile Leu Met Tyr Glu Lys
                        135
   130
Leu Thr
145
<210> 510
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 510
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
            1.00
                                105
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Gly
       115
                           120
                                                125
Val Cys Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Ala
145
<210> 511
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 511
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                                            60
                        55
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
               85
                                    90
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                                    110
                                105
            100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
                            120
                                                125
        115
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
    130
Leu Thr
145
<210> 512
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 512
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
```

```
10
                5
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Lys Tyr Glu
          20
                               25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                           40
Lys Leu Ile Ser Ile Ala Ser Phe His Asn Ala Glu His Ser Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                               105
                                                    110
           100
Ser Val Ser Gly Tyr Tyr Lys Lys Leu Gly Phe Ser Glu Gln Gly Glu
                           120
                                                125
Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
Leu Thr
145
<210> 513
<211> 146
<212> PRT
<213> Artificial Sequence
<220>
<223> Synthetic Protein Sequence
<400> 513
Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg
                                    10
His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu
                                25
Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly
                            40
Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Pro Glu Leu
                        55
                                            60
Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly
                    70
                                        75
Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu
                                    90
               85
Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr
                                105
            100
Ser Val Ser Gly Tyr Tyr Glu Lys Leu Gly Phe Ser Glu Gln Gly Glu
       115
                                                125
                           120
Val Cys Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys
                        135
   130
Leu Thr
145
<210> 514
<211> 146
<212> PRT
<213> Artificial Sequence
<223> Synthetic Protein Sequence
<400> 514
```

Met Ile Glu Val Lys Pro Ile Asn Ala Glu Asp Thr Tyr Glu Ile Arg His Arg Ile Leu Arg Pro Asn Gln Pro Leu Glu Ala Cys Met Tyr Glu 25 Thr Asp Leu Leu Gly Gly Thr Phe His Leu Gly Gly Tyr Tyr Arg Gly 40 Lys Leu Ile Ser Ile Ala Ser Phe His Gln Ala Glu His Ser Glu Leu 55 Glu Gly Gln Lys Gln Tyr Gln Leu Arg Gly Met Ala Thr Leu Glu Gly 70 Tyr Arg Glu Gln Lys Ala Gly Ser Thr Leu Ile Arg His Ala Glu Glu 85 90 Leu Leu Arg Lys Lys Gly Ala Asp Leu Leu Trp Cys Asn Ala Arg Thr 100 105 Ser Val Ser Gly Tyr Tyr Lys Leu Gly Phe Ser Glu Gln Gly Gly 115 125 120 Val Tyr Asp Ile Pro Pro Ile Gly Pro His Ile Leu Met Tyr Lys Lys 135 130 Leu Thr 145

<210> 515

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic DNA Sequence

<400> 515 aactgaagga ggaatctc